

Complete Tech Stack Table

Layer	Technology / Service	Role / Responsibility
Frontend Framework	Next.js (React, TypeScript)	UI, routing, SSR/SSG, frontend logic
State/UI Components	Zustand, shadcn/ui, Material-UI	State management, UI building blocks
Styling	Tailwind CSS, styled-components	Responsive & utility-first styling
Form Handling	React Hook Form, Zod	Forms, schema validation
Authentication	Appwrite Auth	User authentication, OAuth, session management
Database	Appwrite Database	Stores user profiles, listings, bookings, reviews
File Storage	Appwrite Storage	Images, file uploads, receipts
Serverless/API Logic	Appwrite Functions	Custom backend logic, notifications, extensibility
Real-Time Chat	WebRTC, <u>Socket.io</u> , Appwrite Realtime API	P2P messaging, signaling
Video Chat	WebRTC, MirrorFly/Agora/Dyte/Jitsi	P2P/group video calls, SDK for scalable solutions
Payments	Stripe, PayPal	Transactions, escrow, refunds, deposits
Search	Algolia, Elasticsearch	Fast/faceted listing search
Analytics	Google Analytics, Posthog	User activity tracking, analytics
Monitoring	Sentry, LogRocket	Error, crash, performance monitoring
Hosting & DevOps	Vercel (frontend), Appwrite Cloud/Docker	Deployment, scaling, custom domains, CI/CD
CMS (optional)	Sanity, Contentful	Advanced content management
Notifications	Appwrite Messaging	Email, SMS, push notifications
Edge/Serverless	Appwrite Edge Functions	Latency reduction, global function execution

This unified table covers your stack for a modern P2P rental marketplace with P2P video chat and messaging, using Next.js, Appwrite, and complementary services for payments, analytics, and communication.